THE SLOW DEATH OF SUITLAND BOG
by Robert Czerwony

All of those interested in conservation of wild carnivorous plant sites, and particularly those living in the Washington, D.C. area, will be sad to hear of the imminent destruction of yet another wild site--Suitland Bog in Maryland.

Two years ago I spent many summer weekends in Suitland Bog. The plants grew on a small spring-fed slope which drained into a larger swampy stream area and included Drosera intermedia, Drosera filiformis, and Sarracenia purpurea. Several fine specimens of Dionaea, descendants of a crop of fly-traps planted there five years earlier, were also to be found. Anyone who has experienced the wonder of visiting one of these sites knows what a precious, irreplaceable part of our natural resources they are, and can understand why I was disturbed to find just a short distance above the bog a large cleared area adjacent to an apartment complex, obviously waiting for some future expansion.

In August I drove to Washington for a few days and visited the bog again. It was much more difficult to find than it had been, and what was most disturbing to me was that the boundaries of the cleared area had been expanded; in several places roads had been cut directly across the main drainage of the swamp, and worst of all, an access road had been cleared through the very base of the swamp, accelerating drainage of the entire area. When at length I found the CP slope, the area supporting the plants had shrunk to less than half of what it had been. The Sarracenia population was nearly wiped out, the ground there having dried fully and been overgrown by the advancing trees, while the total number of Drosera was down to about a third of what I had previously observed. At the current rate of drainage, all the CP species would probably be gone in another two years even if left undisturbed. Most ominous was what appeared to be a surveying stake planted right at the foot of the slope. New areas on either side of the bog had been bulldozed and filled, auguring no good for the survival of the Suitland plants.

There is a way to save the plants, though nothing will help the bog itself. We needn't sit back and watch them get buried for the greater glory and profit of another apartment complex, for there is a nearby carnivorous plant-supporting bog in Cedarville State Forest, Maryland. It is close enough for three or four determined people to transplant the entire remaining CP population of Suitland Bog to the protection of the state forest which is patrolled by permanently-stationed rangers.

I am really unable to do much more (gas, tolls and meals to and from Cleveland is no small matter), though I did remove some excellent flowering Drosera which are all doing well. I would like to suggest that all those CP enthusiasts in the Washington, D.C. area take some action in this matter. Collect a small number, transplant the rest. It is far preferable to waiting for the bulldozer and cement trucks. If anyone interested does not know the exact location of the bog, write to me at 574-C Corkhill Rd. #319, Bedford, Ohio 44146, or call Dr. Schetler at the Smithsonian, who has visited the bog.

I will be working on propagating those plants I have collected and would rather have them raised and traded among knowledgeable CP collectors than simply watch them be razed for a parking lot. Over a year ago I purchased a dozen flytraps from a commercial grower, but will never need to again, for through bulb-splitting and leaf propagation I have over fifty healthy plants today and expect to have even greater success with the Drosera. It is a sad thought that in another fifty years these plants may have been exploited and eliminated out of most of their wild sites, and survive only in collections and protected areas, but that is better than going the way of the passenger pigeon.

I would be most interested to hear from anyone in the Washington, D.C. area regarding the plants or future of Suitland Bog.

MEASURING ACTION POTENTIALS IN DIONAEA
by Dave Dubosky

Recently I was working on an experiment involving potentials in Venus' flytraps and I thought some of my findings would be of interest to you.

One of my references (Joseph R. DiPalma, Robert Mohl, and William Best, Jr., "Action Potential and Contraction of Dionaea muscipula" Science, Vol. 133, March 24, 1961) that best explained things to me told me much, except how to and where to attach the electrodes to the plants (the electrodes are connected to an instrument that picks up electrical currents, or potentials, in the plants). After much experimentation, we discovered that the electrodes should be attached to the outside of the trap itself and not to the petiole as we had once thought. We connected the electrodes using "Glycerin and Rosewater", a hand lotion that not only is sticky enough to hold them to the plant, but gives good electrical contact. The electrodes themselves were made of aluminum foil, for they must be flexible in order to stay attached during the closing of the trap.

When everything was set up, I turned on the instrument and the audio oscillator (part of the instrument) emitted a constant sound, always at the same pitch. When the plant's electrical current changed, so would the pitch.

I touched a trichome once. The pitch went up, down, and leveled off. Now it sounded the same as it always did. I touched it again and it repeated the same oscillations as before; this time, however, the trap closed.

I tried this using a live insect in the trap, and I could hear two distinct touches of the trichomes and then the closing of the trap. For quite some time then the insect stood still. Then suddenly violent thrashing around was heard through the instrument. Repeatedly, the insect touched the trichomes. Little did the animal know he was only signalling the plant to close tighter.

SPECIAL NOTICES

CP PHOTOS FOR SALE--JOE ISLEY (Box 2774, Duke Hospital, Durham, NC 27710), in the interest of conserving CP, has become a photographer of them rather than a collector. His photos are quite good and some have been published. These are in color, on 3 1/2 x 5 inch bordered glossy paper, and the original slides were made with a Pentax camera. The prints are 35¢ apiece and are made up to order, so allow 3-6 weeks for delivery. Presently available are: Sarracenia flava, S. purpurea (venosa), S. leucophylla, Dionaea, Drosera intermedia, D. filiformis, and Pinguicula caerulea. All photos were made in the field or in the habitat gardens at the North Carolina Botanical Garden in Chapel Hill.

TREVOR KUCHEL is looking for seeds in large or small quantities of Sarracenias, especially the different forms of species (either home grown or preferably collected in the wild). Also, hybrid seed and homemade crossings are sought. Contact him at P.O. Box 110, Murray Bridge, S.A. 5253 Australia, and please state what seeds you have and approximate price.

JOE MAZRIMAS has received relatively few requests for Nepenthes cuttings for the spring of 1976. He thanks everyone for sending in a letter requesting the cuttings and their description on how they intend to root and grow them. This is one last chance for the year to acquire various species of this pitcher plant. There will be many cuttings to send. See the notice on page 51 of #3 CPN. He also has several copies of Randall Schwartz's book left for sale at $5.50 domestic and $5.75 for foreign orders postpaid. This is the last chance for acquiring this book at this low price.

RECENT LITERATURE

Affolter, J.M., Olivo, R.F.: Action Potentials in Venus' flytraps: Long-term observations following the capture of prey. Am. Midl. Nat. 93(2): 443-445. 1975.
A flexible length of silver wire was attached to a leaf with a mixture of electrode paste and glue. Action potentials were produced in closed flytraps after prey had been trapped and only if prey were still active. Continuous recordings could be made for fifteen hours or longer.

Carlquist, S.: Island Biology, Columbia University Press, 1974.
In this book Dr. Carlquist discusses in one of its chapters the adaptive radiation of plants in Western Australia. Among the plants mentioned are the tuberous Droseras and their adaptation to fire and dryness. Also, the vining types of Droseras such as Drosera heterophylla, one of the ten species, show adaptation with twining stems.

DeBuhr, L.E.: Phylogenetic relationships of the Sarraceniaceae. Taxon 24:297-306, 1975.
The author believes there is little evidence to support a taxonomic relationship of this family with Droseraceae and Nepentheaceae, and suggests that placement as a suborder of the Theales would be best.

Forsyth, A., Robertson, R.J.: "K" reproductive strategy and larval behavior of the pitcher plant sarcophagid fly, Blaesoxipha fletcheri. Can. J. Zool. 53(2): 174-179, 1975.
The number of S. purpurea leaves limits the density of the insect larvae so that only one larva per pitcher leaf utilizes the food present. As a result, few larvae are produced but they are very large so that it is suggested that this larva is a "K" strategist relative to other sarcophagid flies.

Hashmi S., Siddiqui, S.: Trichomes on the floral parts of Utricularia. Bangladesh J. Bot. 3(2): 67-72, 1974.
Ontogeny, structure and distribution of four new types of trichomes of taxonomic importance in U. bifida, minor, stellaris, dichotoma, and cornuta are described.

Ishizu, Hiroshi: Insectivorous Plants. Jour. of Medical Reports of Ohtsuka. No. 274, pp. 30-41, 1975. IN JAPANESE
This little review contains some three dozen color photos of various CP and a brief description of types and function of each one.